SARAYEVA, V.V.

in collection of articles--
Effect of Ionizing Radiation (~~Contd~~) on Inorganic 190 and Organic Systems, Moscow, Izd-vo AN SSSR, 1958, 416pp. (most works a continuation of Sb rabot po radiat, khim, 1955)

Sarayeva, V.V., Bakh, N.A., Rybin, L.V., Larin, V.A. Oxidation of Organic Compounds with Molecular Oxygen Due to Ionization Radiation. Part 6. Identification of Individual Products Obtained From the Oxidation of N-Heptane and Isooctane 248

This paper discusses the identification of individual carbonyl compounds and acids, and the accumulation of alcohols formed during the radiolytic oxidation of n-heptane and isooctane. It was shown that most of the carbonyls are composed of compounds with the number of carbons close to that of the original hydrocarbon molecule. There are 15 figures, 7 tables, and 15 references of which 7 are Soviet, 7 English and 1 French.

Sarayeva, V.V., Rudenko, B.I. Radiolytic Oxidation of Acetone 263

Acetone was irradiated with Co^{60} γ-radiation in doses of 2×10^{13} and 1×10^{14} ev/cm^3. sec and with X-rays of 2×10^{16} ev/cm^3 sec. in the presence of oxygen and at temperatures of 18 - 20°. Acids and aldehydes were the products of oxidation. No peroxides were detected. The amount of aldehydes increased with the increase of the dosage rate. The initial aldehyde yield is $\sim$ 80 molecules per 100 ev and it is independent of the dosage rate. There are 2 figures and 6 references, 3 of which are Soviet and 3 English.

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Sarayeva, V.V., Kinetics of Interaction of Organic Peroxides With the ~~Iodide Ion in~~ Acetic Acid and the Determination of Peroxides Obtained From Radiolytic Oxidation of Hydrocarbons 266

This is a study of the rate of interaction of sixteen organic peroxides with potassium iodide in glacial acetic acid. It was determined that the peroxides differ in rate constants but the rate constant for a given type of peroxides varies only slightly with changes in the structure of the hydrocarbon chain of the peroxide. Radiolytic oxidation yields hydroperoxides and peroxides from n-heptane, isooctane and toluene. Cyclohexane and tetralin yield only hydroperoxides. There are 6 figures, 2 tables, and 16 references of which 6 are Soviet, 8 English, and 2 German.

Zimin, A.V., Churmanteyev, S.V. The Effect of γ-Radiation on Benzene-Ammonia Mixture 273

This paper considers the effect of dosage, temperature, and aggregate state on the yield of aniline, hydrogen, and nitrogen. The activity of the Co^{60} radiation source was $\sim$ 80 and $\sim$ 700 g-equiv., and the period of irradiation was 3 to 256 hours. The basic products of radiolysis in the absence of air were aniline, hydrogen, nitrogen, and

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76-32-2-1/38

AUTHORS: Bakh, N. A., Sarayeva, V. V.

TITLE: Oxidation Processes in Organic Systems Under the Influence of Ionizing Radiation (Okislitel'nyye protsessy v organicheskikh sistemakh pod deystviyem ioniziruyushchikh izlucheniy)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 2, pp. 209-218 (USSR)

ABSTRACT: Primarily, the following process is investigated here: the radiation oxidation of the individual compounds at the expense of molecular oxygen and on such conditions where the radiation energy is directly absorbed by the oxidizing molecules, the molecules being put into a reactive state because of ionization, excitation and the decomposition of radicals. - The formulation of the problem includes the explanation of the nature and the yield of the products forming in the reaction in dependence on the parameters which characterize the radiation (ionization density), the irradiated substances (molecular structure, state of aggregation) and the conditions of irradiation (quantity of dosage, temperature

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etc.). The present work is based on the experimental results of the last years obtained by the scientific collectives of the Laboratories for Radiation Chemistry at the Institute for Physical Chemistry of the AS USSR, as well as at the Moscow State University. The here developed ideas on the mechanism of radiation oxidation can be summarized as follows: The oxidation of organic compounds by radiation differs from photochemical and non-catalytic thermal oxidation by the fact that it is in the position to take place with a definite yield. This is the case on conditions where the development of the chain processes does not take place with a measurable velocity, and the oxidation products in it are not consecutively formed but are formed simultaneously. These characteristic features can be explained when it is assumed that the primary radicals R and the peroxide radicals RO_2 forming from them have an excess energy which is sufficient for the isomerization as well as for the interaction with not excited molecules at room temperature or at a lower temperature, - while the secondary radicals forming in it are not capable of repeating these reactions. The results of the present investigations of the interaction processes between ions and molecules show that the energy

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Oxidation Processes in Organic Systems Under the Influence of Ionizing Radiation

necessary for the excitation of the radicals can be secured by the primary acts of radiolysis. There are 4 figures, 2 tables, and 28 references, 19 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut fizicheskoy khimii i Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Institute for Physical Chemistry, AS USSR, and Moscow State University imeni M. V. Lomonosov)

SUBMITTED: November 1, 1957

1. Organic compounds--Oxidation 2. Organic compounds--Effects of radiation

Card 3/3

SARAYEVA, V. V.

PHASE I BOOK EXPLOITATION SOV/5084

International Conference on the Peaceful Uses of Atomic Energy. 2d, Geneva, 1958.

Doklady sovetskikh uchenykh. [t.4] Khimiya radioelementov i radiatsionnykh prevrashcheniy (Reports of Soviet Scientists. v. 4.: Chemistry of Radioelements and Radiation Transformations) Moscow, Atomizdat, 1959. 323 p. 8,000 copies printed. (Series: Its: Trudy)

Ed. (Title page): A. P. Vinogradov, Academician; Ed.: V. I. Labaznov; Tech. Ed.: Ye. I. Mazel'.

PURPOSE: This collection of articles is intended for scientists and engineers interested in the applications of radioactive materials in science and industry.

COVERAGE: The book contains 26 separate studies concerning various aspects of the chemistry of certain radioactive elements and the processes of radiation effect on matter. These reports discuss present-day methods of reprocessing irradiated nuclear fuel, research in the chemistry of mercury, thorium, uranium, plutonium, and americium, problems related to the sorption and burying of radioactive wastes, the radiolysis of aqueous solutions and of organic compounds, the mechanism of polymer chain grafting, and the effect of radiation on natural and synthetic rubbers. V. N. Prusakov edited the present volume. Most of the reports are accompanied by references. Contributors to individual investigations are mentioned in annotations to the Table of Contents.

TABLE OF CONTENTS:

[illegible] L. V. Lipis, Y. V. Fomin, and N. T.

Pravednikov, A. N., Ying Shang K'ang, and S. S. Medvedev. Mechanism of Polymer Chain Grafting Under the Effect of γ-Radiation (Report No. 2294) 241

Kimakov, P. V., A. V. Fokin, Ye. V. Volkova, V. V. Kulichenko, N. I. Bogdanov, V. G. Bereskunov, and A. G. Bykov. Prospects for the Utilization of Fragmentation Radiators in Radiation Chemistry Processes (Report No. 2209) 247

Polak, L. S., A. V. Topchiyev, and N. Ya. Chernyak. Radiolysis of the Alkanes (Report No. 2524) 254

Kuz'minskiy, A. S., T. S. Nikitina, Ye. V. Zhuravskaya, L. A. Oksent'yevich, L. L. Sunitsa, and N. I. Vitushkin. Effect of Ionizing Radiation on Natural and Synthetic Rubbers (Report No. 2085) 266
[The following are mentioned for their part in certain phases of the investigations: L. I. Lyubchanskaya, N. N. Lezhnev, F. A. Galil-Ogly, T. N. Dyumayeva, and A. S. Novikov.]

Yakovlev, Yu. V., A. I. Kulak, V. A. Ryabukhin, and R. S. Rychkov. Determination by the Radioactive Analysis Method of Small Quantities of Impurities in Pure Substances (Report No. 2023) 280
[The following are mentioned as having participated in the development of analysis methods in connection with the present study: M. N. Shchulepnikov, I. P. Alimarin, V. I. Shamayev, and Professor D. I. Ryabchikov.]

Turovtseva, Z. M., and N. F. Litvinova. Determination of Gaseous Impurities in Structural and Other Materials (Report No. 2205) 297
[The following are mentioned as having developed experimental techniques and analysis methods relative to this investigation: Yu. A. Klyachko, L. L. Kunin, and Ye. M. Chistyakova (TsNIIChM - Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii - Central Scientific Research Institute of Ferrous Metallurgy); N. M. Rostotskaya and K. G. Semenyuk (GEOKhI - Institut geokhimii i analiticheskoy khimii - Institute of Geochemistry and Analytical Chemistry); and V. I. Malyshev (FIAN - Fizicheskiy institut AN SSSR - Institute of Physics AS USSR)]. 16

Korovin, Yu. I., and L. V. Lipis. Determination by the Spectral Method of Impurities in Zirconium and Its Compounds (Report No. 2137) 316
as having made a study [illegible]
of dyes from leuco bases: V. D. Orekhov, A. A. Zansokhova, [illegible] Malen'kiy, T. V. Brosberg, and M. Ye. Kazanskaya.]

[illegible], V. I. Medvedovskiy, and V. V. Sarayeva. Radiolysis and Radiation Oxidation of Organic Compounds (Report No. 2293) (31) 229
[The following are mentioned: N.S. Kolosova and V. F. Tsurikov,

Sarayeva, V.V.

PHASE I BOOK EXPLOITATION SOV/3663

Akademiya nauk SSSR. Institut khimicheskoy fiziki

Okisleniye uglevodorodov v zhidkoy faze; sbornik statey (Oxidation of Hydrocarbons in the Liquid Phase; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 334 p. Errata slip inserted. 2,200 copies printed.

Ed.: N. M. Emanuel', Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: K. M. Dyumayev; Tech. Ed.: I. F. Kuz'min.

PURPOSE: This collection of articles is intended for chemists interested in hydrocarbon oxidation reactions, particularly for those specializing in petroleum fuels.

COVERAGE: This collection of 33 articles represents the results of investigations
over a period of several years on problems of hydrocarbon oxidation. The
authors present their own theoretical and experimental data and also draw from
current literature. No personalities are mentioned. References accompany
most of the articles.

Sergeyev, P.G. (Deceased), B.V. Kiryan, and B.I. Golovanenko [Scientific
Research Institute of Synthetic Alcohols and Organic Products]. Kinetics
of the Thermal Decomposition of Certain Aliphatic-Aromatic Hydrogen 207
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The kinetics of the thermal decomposition of the hydroperoxides of
isopropylbenzene and of s-butylbenzene, with and without solvents,
is investigated at 100-130°C. It is shown that the thermal de-
composition reactions of s-butylbenzene and isopropylbenzene hydro-
peroxides differ greatly.

Kucher, R.V., A.I. Yurzhenko, and M.A. Kovbus [L'vovskiy gosudarstven-
nyy universitet imeni Ivana Franko (Lvov State University imeni Ivan Franko)]. 212
Oxidation of Tertiary Hydrocarbons in Emulsions by Molecular Oxygen
The rate of hydrogen peroxide accumulation during the oxidation of
isopropylbenzene by gaseous oxygen in alkaline emulsions of
hydrocarbons was investigated. The presence of emulsifiers in-
creases the rate of oxidation as a result of increased oxygen, hydro-
carbon and hydrogen peroxide solubility in the aqueous phase.
Solid bentonite emulsifiers were used. Isopropylbenzene is more
easily oxidized than 1,1-diphenylethane.

Evenkova, M.S. [Moscow State University imeni M.V. Lomonosov]. Oxid- 220
ation of Aromatic Hydrocarbons by Oxygen
The author explains the link between the structure of aromatic
and naphthenic hydrocarbons and their stability with respect to
oxygen at high temperatures (175-205°).

Yurzhenko, T.I., K.S. Grigor'yeva, N.V. Aref'yev, and M.R. Vilenskaya
[L'vovskiy politekhnicheskiy institut (L'vov Polytechnical Institute)]
Chromatographic Synthesis of Alkylated Hydrogen Peroxides of the 1, 1-Dip- 227
henylethane Series

Mitskevich, N.I., and T.N. Soroko [Institut khimii AN BSSR (Institute
of Chemistry, Academy of Sciences BSSR)]. Conjugate Decarboxylation 238
in the Autoxidation of Resin Acids
The authors have shown that this phenomenon is characteristic
of the oxidation process of all resin acids. The results obtained
are particularly important for understanding the chemistry of
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Sarayeva, V.V. [Moscow State University imeni M.V. Lomonosov]. 245
Kinetics of the Reaction of Organic Peroxides With the Iodine Ion
The author concludes from the kinetics of the separation of iodine
by a given peroxide that it is possible to determine the peroxide
qualitatively and quantitatively and to identify its class.

Chukhova, L.K. [Institute of Chemical Physics, Academy of Sciences USSR]. 249
Quantitative Methods of Determining Fatty Acids of Normal Structure
The author has used paper chromatography to separate mixtures of
hydroxamic acids up to C4 and their derivatives, and the distillation
method to separate methyl esters of acids above C5 with a carrier.

Moshkin, P.A. [Corresponding Member, Academy of Sciences USSR)
[Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i
gaza i polucheniya iskusstvennogo zhidkogo topliva (All-Union Scientific
Research Institute of Petroleum and Gas Refining and of Synthetic Liquid
Fuel Production)]. Oxidation of Solid Hydrocarbons to Obtain Synthetic 255
Fatty Acids
The author discusses the composition of mixtures of synthetic
fatty acids, data on neutral oxygen-containing compounds of "second-
ary nonsaponifiables" of the paraffin oxidation product, and re-
search mat thermal synthesis in nonalkaline media.

5 (4), 21 (8) SOV/76-33-8-16/39

AUTHORS: Sarayeva, V. V., Kolosova, N. S.

TITLE: Radiation-chemical Transformations of Diisopropyl Ether in Aqueous Solution

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 8, pp 1774 - 1779 (USSR)

ABSTRACT: The radiation-chemical transformation of diisopropyl ether (I) in aqueous solutions was investigated on the assumption that the dissolved substance reacts with the radiolysis products of water. The saturated aqueous solutions of (I) (0.02 m) were irradiated at room temperature with X-rays produced by a plant RUP-1M operating at 80 kv and 15 ma. The capacity of the radiation energies used was determined after the oxidation of $FeSO_4$ in 0.8 n H_2SO_4, and amounted to over $2 \cdot 10^{15}$ $ev/cm^3 \cdot sec$. Experiments were carried out with solutions saturated with different gases (O_2, H_2 or N_2). The results showed that in the irradiated aqueous (I)-solutions the composition and properties of the accumulation depend on the gas with which the solution had been saturated (Table 1). In the presence of oxygen (II), H_2O_2,

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Radiation-chemical Transformations of Diisopropyl Ether in Aqueous Solution SOV/76-33-8-16/39

alcohol, and acetone were found, in case of a nitrogen (III) saturation, alcohol and acetone, and in case of a hydrogen saturation only acetone was observed. In the first case, the acetone yield was lowest. In order to examine the influence of the reaction products, experiments were made with additions of H_2O_2, acetone, and isopropanol. H_2O_2 additions ($5\cdot10^{-4}$ m) had a marked effect upon the (I)-radiolysis (Table 1). A reaction pattern for the formation of the reaction products in the transformation of (I) is given. According to this pattern, there is a cooperation of the H- and OH-radicals. It is assumed that the reactivity of the HO_2-radical with the (I)-molecule is lower than that of the H- and OH-radicals. Since no alcohol is formed in hydrogen-saturated solutions, it may be said that the reaction $H_2 + OH \rightarrow H_2O + H$ (5) proceeds rather rapidly and quantitatively. In the presence of (II), first H_2O_2 is formed; then it decomposes, and more acetone is formed. The intense H_2O_2-decomposition points to processes with short chains, and can take

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Radiation-chemical Transformations of Diisopropyl Ether in Aqueous Solution SOV/76-33-8-16/39

place with the H-atoms and (I)-radicals (8) and (9) participating. Finally, the authors thank Professor N. A. Bakh. There are 4 figures, 2 tables, and 9 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 22, 1958

Card 3/3

S/076/60/034/04/09/042
B010/B009

AUTHORS: Sarayeva, V. V., Ladygin, B. Ya., Nam Chan Sun (Moscow)

TITLE: Radiolysis and Radiation Oxidation of Diisopropyl Ether

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 4, pp. 759-761

TEXT: The chemical changes caused by radiation in common ethers are important for the reason that such ethers are used as extraction agents for radioactive substances. In the present case the formation of carbonyl compounds and alcohols in diisopropyl ether during X-ray irradiation was investigated. An RUP-1M X-ray apparatus (200 kv, 20 ma) was used. The material was irradiated at 25°C in the presence and absence of oxygen. The initial carbonyl compound yield in the absence of oxygen depends greatly in the impurities contained in the ether (particularly acetone). A chromatographical analysis of the irradiated ether showed that acetaldehyde, acetone, and a long-chain methylketone (possibly methylisobutylketone) forming the bulk of the mixture were present An addition to the ether of 3.10^{-3}M of acetone before irradiation does not result in an increase in the percentage of carbonyl compounds but in a change in the composition: acetone disappears, while the long-chain

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BUGAYENKO, L.T.; KALYAZIN, Ye.P.; SARAYEVA, V.V.

[Laboratory work in radiation chemistry]Praktikum po radiationnoi khimii. Moskva, Mosk. gos. univ., 1962. 161 p.
(MIRA 16:1)

(Radiochemistry)

S/195/62/003/006/004/011
E075/E436

AUTHORS: Sarayeva, V.V., Bakh, N.A.. Dakin, V.I., Dillinger, P.

TITLE: Influence of temperature and dose rate on the radiolysis and the radiation induced oxidation of diisopropylether

PERIODICAL: Kinetika i kataliz, v.3, no.6, 1962, 865-869

TEXT: The object of the work was to elucidate the mechanism of decomposition and oxidation of diisopropylether under the action of α and γ irradiation. The ether was freed from peroxides, water and carbonyl compounds and irradiated after evacuation, or in the presence of oxygen, at a range of temperatures (-35 to 70°C). The yield of carbonyl compounds reached a sharp maximum ($G = 14.5$ mole/100 eV) at about 25°C. At 35°C the yield decreased to about 3 mole/100 eV. Temperature did not affect the formation of alcohols. The carbonyl compounds were formed by chain reaction with an activation energy of 11 kcal/mole, the chain growth being determined by the interaction of isopropyl radicals with the ether molecules. The formation of carbonyl compounds by the chain

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reaction was confirmed by the increase of their yield with increasing radiation dosage. No corresponding increase occurred for alcohols, which indicated that they are not formed by chain reaction. In the presence of O_2, the yields of peroxides and carbonyl compounds remain stable at 5.4 and 6.6 mole/100 eV respectively. Above 10°C, the yield increases for all the radiolysis products investigated to about 250 mole/100 eV at 70°C. The values of activation energies for the oxidation above 10°C (15 and 20 kcal for peroxides and carbonyl compounds respectively) indicate that the peroxide results from the reaction of O with an ether molecule, determining the development of a chain reaction, and the carbonyl compounds result from the decomposition of peroxide radicals. For the peroxides $G = kI^{-0.5}$ at 30°C, where I - dose intensity corresponding to the chain process. For carbonyl compounds $G = kI^{-0.7}$, also a chain reaction. Low yields for acids and alcohols indicate that they are not formed by chain reactions, but possibly by isomerization and decomposition of peroxide radicals. These reactions are realized by the excess energy possessed by the radiolysis products at the moment of their

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Influence of temperature ...

S/195/62/003/006/004/011
E075/E436

formation. There are 5 figures and 1 table.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

SUBMITTED: October 25, 1961

Card 3/3

37627

S/076/62/036/005/001/013
B101/B110

5.4600

AUTHORS: Sarayeva, V. V., and Vannikov, A. V.

TITLE: Radiolysis of sulfuric acid solutions of diethyl ether in the presence of oxygen

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 5, 1962, 933 - 936

TEXT: The effect of the concentration of ether and sulfuric acid on the yield of radiolysis products (carbonyl compounds (aldehydes) and H_2O_2) has been investigated. Water or sulfuric acid, saturated with ether and O_2, were irradiated in an РУП-1М (RUP-1M) x-ray apparatus. The ether concentration was between $1 \cdot 10^{-3}$ and 1 M, the sulfuric acid concentration between $1 \cdot 10^{-3}$ and 4.5 M. Results: (1) In aqueous solution, the H_2O_2 yield is independent of the ether concentration. This shows that H_2O_2 is formed from H_2O only. Values calculated: $G(H_2O_2) = 2.15$ molecules/100 ev, found: $G(H_2O_2) = 2.0 \pm 0.1$ molecules/100 ev. (2) If all OH radicals react with

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ether, the carbonyl compound yield cannot be higher than G(OH) = 2.15 molecules/100 ev. Values found: G(carb) = 1.67 ± 0.1 molecules/100 ev at 0.01 - 0.1 M ether concentration. G(carb) increases at higher ether concentrations. (3) In the presence of H_2SO_4, the yield of radiolysis products varies with the ether and acid concentration. Two ranges were found: (a) Up to 0.1 M H_2SO_4, G(carb) decreases (1.67 at 0 M H_2SO_4, 0.90 at 0.1 M H_2SO_4, ether concentration 0.01 M), and G(perox) increases (G(perox) = 2.05 at 0 M H_2SO_4, 3.20 at 0.1 M H_2SO_4). The reaction $HSO_4^- + OH \rightleftharpoons HSO_4^{\cdot} + OH^-$ removes OH radicals from the system, whereby G(carb) is reduced. The resulting persulfuric acid raises G(perox). (b) At $c_{H_2SO_4} > 0.1$ M, the G(carb) is increased (1.50 at 1 M H_2SO_4, 2.24 at 4 M H_2SO_4, c_{eth} = 0.1 M). A direct reaction of ether radicals with HSO_4^- is assumed. There are 3 figures and 1 table. The most important English-language references are: P. Phung, M. Burton, Radiation Res., 7, 199, 1957; M. Doniels, J. Lyon, J. Weiss, J. Chem. Soc., 4388, 1957; T. J. Hardwick, J. Chem. Phys., 31, 226, 1959.

X

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Radiolysis of sulfuric acid...

S/076/62/036/005/001/013
B101/B110

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: June 30, 1960

X

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S/844/62/000/000/036/129
D214/D307

AUTHORS: Sarayeva, V. V. and Vannikov, A. V.

TITLE: Radiolysis of sulfuric acid solutions of diethyl ether in the presence of oxygen

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 227

TEXT: The conditions for the formation of acetone, alcohol and H_2O_2 and the influence of one product on the formation of the others, during the radiolysis of di-iso-propyl ether have already been studied. The present work is a study of the influence of the concentrations of diethyl ether and H_2SO_4 on the yields of radiolysis products (carbonyl compounds and peroxides), in the presence of O_2. The yield of the carbonyl compounds is lowered and that of the peroxide is increased by the presence of H_2SO_4 in concentrations up

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D214/D307

to 1 M. This is attributed to the interaction of HSO_4^- with $\dot{O}H$. At higher H_2SO_4 concentrations the yield of the carbonyl compounds begins to increase, which may be related to the interaction of $\dot{H}SO_4$ radicals, formed by the primary action of radiation on HSO_4^-, with molecules of the ether. /Abstracter's note: Complete translation./

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, khimicheskiy fakul'tet (Moscow State University im. M. V. Lomonosov, Faculty of Chemistry)

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S/844/62/000/000/060/129
D204/D307

AUTHORS: Sarayeva, V. V., Bakh, N. A. and Dakin, V. I.

TITLE: Radiational oxidation and radiolysis of di-iso-propyl ether

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 357-361

TEXT: The mechanism of the above reaction was studied under the action of x rays, with a constant dose of 3.5 x 10^{15} ev/cm^3.sec at -23 to +57°C and with doses of 4.3 x 10^{14} - 1.4 x 10^{16} ev/cm^3.sec at constant temperature. Up to +10°C the yields G (mols per 100 ev) of peroxides and carbonyl compounds were practically independent of temperature; the yields of all products studied (above - acids and alcohols increased rapidly at >10°C). Above 30°C the yields of acids and alcohols plotted against the dose of irradiation gave rise to S-shaped curves, showing the successive formation of products. Log

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$G/\frac{1}{T^{o}K}$ curves showed the existence of 2 mechanisms for the formation of peroxides and carbonyl compounds: a radical-molecular non-chain mechanism in the region where $G \not\propto T$, and a chain mechanism at higher temperatures. The latter was confirmed by experiments carried out at various irradiation doses or in the presence of chain inhibitors. No significant oxidation of the ether was observed even at 50°C in the absence of previous irradiation; after irradiation the reaction proceeded only above 40°C. Decomposition of the peroxide product was demonstrated to be easier under the action of x rays than under the influence of heat. Radiolysis of the ether at 25°C in the absence of oxygen showed that the yields of carbonyl compounds increased with decreasing dose of irradiation, whilst those of alcohols became lower. This and the strong influence of admixtures on the reaction indicates a chain mechanism; the alcohols are believed to form as a result of chain-breaking. There are 5 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, Khimicheskiy fakul'tet (Moscow State University im. M.V. Lomonosov, Faculty of Chemistry)

SARAYEVA, V.V.; BAKH, N.A.; DAKIN, V.I.; DILLINGER, P.

Effect of temperature and dose rate on the radiolysis and radiation-induced oxidation of diisopropyl ether. Kin.i kat. 3 no.6:865-869 N-D '62. (MIRA 15:12)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

(Isopropyl ether)
(Radiation)

SARAYEVA, V.V.; NOVGORODOVA, E.Z.

Possiblity of determining the yield of radicals in the radiolysis of diisopropyl ether by reaction with the $FeCl_3$ acceptor. Kin.i kat. 4 no.1:163-165 Ja-F '63. (MIRA 16:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet.

(Radicals (Chemistry)) (Ethers) (Radiation)

SARAYEVA, V.V.; TSZIN' YUY-TAY [Chin Yü-t'ai]

Radiation-induced oxidation of 1-heptene. Kin.i kat. 4 no.5: 662-665 S-O '63. (MIRA 16:12)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet.

SARAYEVA, V.V.; TSZIN' YUY-TAY [Chin Yu-t'ai]

Radiation-induced oxidation of two-phase hydrocarbon - water systems. Kin. i kat. 4 no.6:823-828 N-D '63. (MIRA 17:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet.

BKHATTACHARIYA SUDKHIDRA NATKH; SARAYEVA, V.V.

Radiolysis of diluted aqueous solutions of isopropyl alcohol in the presence of oxygen. Vest. Mosk. un. Ser. 2: Khim. 19 no.5:53-56 S-O '64. (MIRA 17:11)

1. Laboratoriya radiatsionnoy khimii Moskovskogo universiteta.

L 24806-65 EPF(c)/EPF(n)-2/EWG(j)/EWP(j)/EWA(h)/EWT(m)/EWA(1) Pc-4/Pr-4/Pu-4/Peb 48
ACCESSION NR: AP4049925 GG/RM S/0020/64/159/003/0622/0625 4B
B

AUTHOR: Romantsev, M. F.; Sarayeva, V. V.; Bakh, N. A.; Frumkin, A. N. (Academician)

TITLE: Mechanism of formation of dialkyl peroxides during radiation-induced oxidation of hydrocarbons 19

SOURCE: AN SSSR. Doklady*, v. 159, no. 3, 1964, 622-625

TOPIC TAGS: hydrocarbon oxidation, radiooxidation, ionizing radiation, dialkyl peroxide, polarography

ABSTRACT: Thoroughly purified and dried isooctane (2,2,4-trimethylpentane) and n-heptane were exposed to x-rays (70 kV max.) and gamma rays (Co^{60}) at a dose rate of 2×10^{16} eV/ml·sec, and a temperature of 0C, a steady stream of $O_2 + N_2$ mixtures of various compositions being bubbled through. The hydroperoxides were determined polarographically, the total peroxides were determined iodometrically, and the content of dialkyl peroxides was obtained by difference. Alcohols were determined colorimetrically as 2,4-dinitrophenyl-hydrazones. The proposed reaction mechanism, confirmed by the experimental data, is as follows:

$$RH \rightsquigarrow \dot{R}$$

$$\dot{R} + ROOH \rightarrow R\dot{O} + ROH$$

$$2R\dot{O} \rightarrow ROOR$$

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ACCESSION NR: AP4049925

2

In the presence of oxygen, the R radicals first form peroxide radicals

$$\dot{R} + O_2 \rightarrow R\dot{O}_2 \quad (1)$$

which then convert into hydroperoxides, carbonyl components, and alcohols, and the corresponding reactions

$$R\dot{O}_2 + RH \rightarrow ROOH + \dot{R} \quad (2)$$

$RO_2 \rightarrow$ carbonyl components (isomerization and decomposition) (3)

display no temperature dependence in the range under consideration. The data obtained indicate that most of the hydroperoxides, carbonyl compounds and alcohols formed preserve the carbon skeleton of the initial hydrocarbon, i.e., that the radical produced by the detachment of one hydrogen atom is chiefly used in the reactions. Only this radical has a sufficiently long lifetime to participate in reactions (1)-(3). Orig. art. has: 3 figures, 2 tables, and 6 equations.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet im. (Moscow State University); Institut elektrokhimii Akademii nauk SSSR (Institute of Electrochemistry, Academy of Sciences SSSR)

SUBMITTED: 07Jul64 ENCL: 00 SUB CODE: OC

NO REF SOV: 010 OTHER: 004

Card 2/2

L 60259-65 EFF(c)/EWG(j)/EWA(k)/EWP(j)/EWT(m)/EWA(1) Pc-4/Pr-4/Peb
ACCESSION NR: AP5011679 DIAAP JAJ/RM UR/0195/65/006/002/0221/0228
541.15

31
28
B

AUTHORS: Ladygin, B. Ya.; Sarayeva, V. V.

TITLE: γ-radiolysis of methanol

19

SOURCE: Kinetika i kata[illegible]z, v. 6, no. 2, 1965, 221-228

TOPIC TAGS: radiolysis, methanol, deuterated methanol, diethyl ether, formaldehyde

ABSTRACT: The study of γ-radiolysis of methanol was undertaken to clear up existing inconsistencies in the literature with regard to the nature of the radiolysis products and the effect of temperature on the yield of the latter. Liquid and gaseous specimens of CH_3OH, CD_3OH, and CH_3OD were radiolyzed by Co^{60} γ-radiation at various temperatures. The radiolysis products were analyzed after B. Ya. Ladygin (Zh. anal. khimii, 19, 508, 1964). The yields of hydrogen, methane, and the sum of the yields of ethylene glycol and formaldehyde increased with increase in temperature. The activation energy of the process was found to be 0.65 kcal/mole. The yields of dimethyl ether and formaldehyde decreased with increase in temperature. The addition of chloroform and oxidizing agents (O_2 and $Fe_2(SO_4)_3$) increased considerably the yield of formaldehyde, whereas the

Card 1/2

L 60259-65

ACCESSION NR: AP5011679

3

addition of acetone, acetaldehyde, water, and benzene had no effect on the yield of formaldehyde. The obtained results are compared with literature data. It was found that the former differ from the latter by smaller yields of formaldehyde and by considerably larger yields of ethylene glycol. The discrepancy is attributed to impurities in the starting product. Reaction mechanisms for the radiolysis process are given. The authors thank N. A. Bakh and M. S. Furman for the interest shown in their work. Orig. art. has: 6 tables, 3 graphs, and 11 equations.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza (State Research and Development Institute for the Nitrogen Industry and Products of Organic Synthesis)

SUBMITTED: 22Jan64 ENCL: 00 SUB CODE: OC

NO REF SOV: 006 OTHER: 017

Card 2/2

L 10960-66 EWT(m)/EPF(n)-2/EWP(j)/EWA(h)/EWA(1) GG/RM
ACC NR: AP5028256 SOURCE CODE: UR/0189/65/000/004/0014/0019

AUTHOR: Sarayeva, V. V.; 44,55 K'ung, Ch'en-chin 44,55 48 83

ORG: Department of Radiation Chemistry, Moscow State University 44,55 (Kafedra radiatsionnoy khimii Moskovskogo universiteta)

TITLE: Effect of temperature and dose rate on the radiation oxidation 7 of isooctane 7,44,55 (2,2,4-trimethylpentane) 19,44,55

SOURCE: Moscow. Universitet. Vestnik. Seriya 2. Khimiya, no. 4, 1965, 14-19

TOPIC TAGS: x ray irradiation, isooctane, oxidation, chemical mechanics

ABSTRACT: In order to establish the conditions under which the chain mechanism of oxidation changes into a nonchain one and vice versa, and to determine the combined influence of temperature and dose rate on the development of the oxidation process, the formation of peroxides, carbonyl compounds, alcohols, acids, and esters was studied during the radiation oxidation of isooctane. The latter, saturated with oxygen, was irradiated at -78 to + 90C at dose rates from 9.2 c 10^{13} to 7.6 x 10^{15} ev/ml sec with a BKhV x-ray tube operating at 65 kv. The dependence of the yield log G on 1/T showed that two independent mechanisms exist in the formation of

Card 1/2 UDC: 541.14+541.15+772/773

L 10960-66

ACC NR: AP5028256

peroxides, carbonyl compounds, and alcohols: nonchain radical processes take place from -78 to +20C, and chain radical processes begin to develop at high temperatures. The activation energy for peroxides and carbonyl compounds is independent of the dose rate. The relationships governing the formation of alcohols and acids are different. The data show that at low temperatures, the radical formed reacts with oxygen, and the primary products, formed by a nonchain radical mechanism, are hydroperoxides and carbonyl compounds. At higher temperatures, the formation of peroxides and carbonyl compounds can occur via a chain mechanism. Orig. art. has: 2 figures and 4 tables.

SUB CODE: 07 / SUBM DATE: 02Oct64 / ORIG REF: 007 / OTH REF: 005

Card 2/2

L 8103-66 EWT(m)/EWP(j)/EWA(h)/EWA(1) RM

ACC NR: AP5026458 SOURCE CODE: UR/0204/65/005/005/0706/0714

44,55

AUTHOR: Sarayeva, V. V.

59

B

44,55

ORG: Moscow State University im. M. V. Lomonosova (Moskovskiy gosudarstvennyy universitet)

TITLE: Radiative oxidation of certain organic materials with molecular oxygen

19

SOURCE: Neftekhimiya, v. 5, no. 5, 1965, 706-714

TOPIC TAGS: organic chemicals, oxidation, oxidation kinetics, radiation chemistry, reaction mechanism, thermodynamic calculation

ABSTRACT: The characteristics of radiative, radiative-thermal, and thermal-radiative processes occurring in the radiative 7 oxidation 7 of certain organic materials were investigated as well as conditions for the transition of one oxidation mechanism to another. Equations were developed on the basis of literature data to describe the reaction kinetics. In low temperature radioloysis oxidation proceeds via a series of reactions leading to hydroperoxide formation. Here the yield is independent of temperature and practically independent of dose rate. The higher temperature radiative-thermal oxidations are initiated by radiation and their rate and yield increase with temperature, but yield is reduced by increase in dose rate. The same

Card 1/2 UDC:542.943+541.15

L 8103-66

ACC NR: AP5026458

reactions obtain as for low temperature radiolysis, but the chain growth reaction $R_1O_2^{\cdot} + RH \longrightarrow R_1OOH + R^{\cdot}$ determines the rate. Interaction of two peroxide radicals will terminate the chain. The temperature at which the chain process develops increases as dose rate increases. The transition from radiative to radiative-thermal reaction occurs within a narrow temperature range (+3C) when the system has enough energy to support the above-mentioned chain reaction. Thermal-radiative oxidations are characterized by a still greater energy of activation, degenerate branching reactions, and thermal decomposition of the hydroperoxide. As temperature is increased the effectiveness of radiation in accelerating an oxidation process is reduced until the reaction becomes purely thermal. Using limited data in different temperature ranges it was shown possible to construct yield-temperature curves for different dose rates. Orig. art. has: 5 tables, 4 figures and 11 sets of equations.

SUB CODE: OC, TD/ SUBM DATE:29May64/ ORIG REF: 021/ OTH REF: 010

Card 2/2

SARAYEVA, V.V.

Mechanism of radiation-induced oxidation of organic compounds by molecular oxygen. Kin.i kat. 6 no.3:537-540 My-Je '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

EWT(m)/EWP(j)/EWA(h)/EWA(1) RM

ACC NR: AP5027188 SOURCE CODE: UR/0076/65/039/010/2599/2602

61

B

AUTHOR: Romantsev, M. F.; 44,55 Sarayeva, V. V.; 44,55 Mishchenko, O. A. 44,55

ORG: Moscow State University im. M. V. Lomonosov 44,55 (Moskovskiy gosudarstvennyy universitet)

TITLE: Radiolysis 7,44,55 of solutions of isooctyl and heptyl peroxides in hydrocarbons

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 10, 1965, 2599-2602

TOPIC TAGS: hydroperoxide, irradiation effect, hydrocarbon, radiation chemistry, peroxide, solution concentration, chemical decomposition, radiolysis

ABSTRACT: The radiolysis of 2,4,4-trimethyl-2-pentyl hydroperoxide 7 in isooctane and of sec-heptyl hydroperoxide in heptane was studied as a function of the initial hydroperoxide concentration and temperature. Dialkyl peroxides and alcohols were formed; in the range of initial doses, the radiolysis takes place as follows:

1) $RH \rightsquigarrow R, H_2.$
2) $R\dot{O}OH + R \rightarrow RO + ROH,$
3) $2R\dot{O} \rightarrow ROOR.$

A study of the yield of radiolysis products formed by the breakdown of hydroperoxides as a function of concentration showed that in the concentration range of 1.8×10^{-4} - 5.6×10^{-3} M at 0°C the hydroperoxide acts as an acceptor of the radicals formed by the hydrocarbon radiolysis. The yield from the breakdown of ROOH and the formation of products depend little on the temperature. The activation energy of these pro-

Card 1/2

UDC: 541.15

2

SARAYEVA, V.V.; KUN CHEN'-TSZIN' [K'ung Ch'ên-chin]

Effect of temperature and dose rate on the radiation oxidation of isooctane (2,2,4-trimethylpentane). Vest. Mosk. un. Ser. 2:Khim. 20 no.4:14-19 Jl-Ag '65. (MIRA 18:10)

1. Kafedra radiatsionnoy khimii Moskovskogo gosudarstvennogo universiteta.

ROMANTSEV, M.F.; SARAYEVA, V.V.; MISHCHENKO, O.A.

Radiolysis of isooctyl and heptyl hydroperoxide solutions in hydrocarbons. Zhur.fiz.khim. 39 no.10:2599-2602 O '65.
(MIRA 18:12)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova. Submitted July 18, 1964.

SARAYEVA, V.V.; BKHATTACHARIYA SUDKHINDRA NETKH

Radiolysis of concentrated aqueous solutions of isopropyl alcohol in the presence of oxygen. Kin. i kat. 6 no. 6: 1102-1105 N-D '65 (MIRA 19:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, khimicheskiy fakul'tet. Submitted April 9, 1964.

SARAYEVA, Z. M.

Sarayeva, Z. M.

"On Methods of comparative study of the toxic properties of tumors and normal tissues under experimental conditions." Acad Med Sci USSR. Moscow, 1955. (Dissertation for the Degree of Candidati in Medical Science)

So: Knizhnaya letopis', No. 25, 1956

SARAYEVA, Z.M. (Moskva)

Growth and metastatic spreading of Walker rat carcinoma depending on the various sites of its inoculation. Pat. fiziol. i eksp. terap. 5 no.6:66 N-D '61. (MIRA 15:4)

1. Iz patofiziologicheskoy laboratorii (zav. - kand. meditsinskikh nauk I.P.Tereshchenko) Nauchno-issledovatel'skogo onkologicheskogo instituta imeni P.A.Gertsena.

(CANCER)

GORODILOVA, V.V.; SILINA, I.[illegible].; SARAYEVA, Z.M.

First experience of vaccination against metastases in breast cancer. Vop. onk. 11 no.2:22-26 '65. (MIRA 18:7)

1. Iz Gosudarstvennoye onkologicheskogo instituta imeni P.A. Gertsena (direktor: prof. A.N. Novikov).

VINOGRADOVA, V.A.; MENDRIK, E.V.; SARAYEVA, Z.M.; SHCHITKOV, K.G.

Experimental data on the dependence of metastasizing on hormonal influences. Neoplasma (Bratisl.) 11 no.6:561-570 '64

1. Iz laboratorii patologicheskoy fiziologii Gosudarstvennogo onkologicheskogo instituta imeni P.A.Gertsena, Moskva, SSSR.

SARAJ̌ISHVILI, P. (Tbilisi, USSR)

"A neuro-achylic syndrome"

Report submitted to the 7th Intl. Congress of Neurology,
Rome, Italy, 10-15 Sep 61

SARAYKIN, G.N.

Surgical treatment of acute thrombophlebitis of subcutaneaous veins of the lower extremities during the second stage of pregnancy. Akush. i gin. no.2:147-148 '65. (MIRA 18:10)

1. Khirurgicheskoye otdeleniye Saranskoy gorodskoy bol'nitsy Nr.3 Mordovskoy ASSR (zav. G.N.Saraykin) i Saranskiy rodil'nyy dom (glavnyy vrach R.I.Grigor'yeva).

SARAYKIN, I. M. (Docent, Saratov Zoovet. Inst.)

(From material received by the editor on Diseases of Swine)

"Swine Poisoning from Peanut Meal"

The author observed cases of swine poisoning when feeding them peanut meal. The disease appeared in a group of swine of good and medium flesh after they had been fed three days on nothing but peanut meal. Two or three days before feeding, the peanut meal was covered with warm water until completely soft. The swine in medium flesh had a lighter form of the disease than the heavier ones.

Veterinariya, No. 9, 1952 p 58

Rpt. U-5638, 10 March 1954 p 49

m

SARAYKIN, I. M.
Min Higher Education USSR. Kazan' State Veterinary Inst imeni N. E. Bauman.

SARAYKIN, I. M.- "Blood pressure and the blood picture in sheep and a swine under normal conditions and in certain pathological processes." Min Higher Education USSR. Kazan' State Veterinary Inst imeni N. E. Bauman. Saratov, 1956. (Dissertation for the Degree of Doctor in Veterinary Sciences)

SO: Knizhnaya Letopis' No. 20, 1956

SARAYKIN, I.M.

USSR/Human and Animal Physiology - Blood Circulation. V-5

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4001

Author : I.M. Saraykin
Inst : -
Title : Arterial Blood Pressure and Blood Picture in Pregnant Sows.

Orig Pub : Vestn. s.-kh. nauki, 1957, No 2, 98-100

Abstract : No abstract.

Card 1/1

SARAYKIN, I.M., dots.

Group-feeding of calves is a good way to prevent diseases. Zhivotnovodstvo 21 no.2:23 F '59. (MIRA 12:3)

1. Saratovskiy zooveterinarnyy institut.
(Calves)

SARAYKIN, I.M., doktor vet. nauk

Arterial blood pressure norms in cattle. Veterinariia 36 no.12:53 D '59. (MIRA 13:3)

1. Saratovskiy zooveterinarnyy institut.
(Blood pressure)

SARAYKIN, I. M.; (Professor, Kishinev Agricultural Institute)

Treatment of calves infected with bronchopneumonia

Veterinariya vol. 38, no. 10, October 1961, pp. 81-89.

SARAYKIN, I.M., doktor veterinar.nauk

Effect of physiological factors on the speed of blood circulation in sheep. Zhivotnovodstvo 23 no.2:76-77 F '61. (MIRA 15:11)

1. Kishinevskiy sel'skokhozyaystvennyy institut.
(Sheep--Physiology) (Blood--Circulation)

STURMAN, A.V., veter. vrach (Strashenskiy rayon, Moldavskaya SSR); BULGAKOV, Yu.N., veter. fel'dsher (Strashenskiy rayon, Moldavskaya SSR); KAL'NITSKIY, P.I., veter. vrach (Strashenskiy rayon, Moldavskaya SSR); OCHAKOVSKIY, Z.M., veter. vrach (Strashenskiy rayon, Moldavskaya SSR); GOTSENOGA, A.D. (Strashenskiy rayon, Moldavskoy SSR); ABRAMYAN, G.I., veter. vrach; MEKHTIYEV, M.G., veter. fel'dsher (s.Shirozlu, Vedinskogo rayona Armyanskoy SSR); KIRAKOSYAN, A.A., veter. vrach; GEORGIYEV, Yu.P., veter. vrach; LOMAKIN, A.M., nauchnyy sotrudnik; SHEPELEV, L.A., veter. vrach.; TARASOV, I.I., assistent; ROMASHKIN, V.M., veter. tekhnik; ANDRIYAN, Ye.A.; BARTENEV, V.S.; KOROL', Ye.I., veter. tekhnik; YEROSHENKO, A.K., aspirant; BANZEN, Ya.P.; SARAYKIN, I.M., prof.; ZHEVAGIN, A.N., veter. vrach; BUT'YANOV, D.D., veter. vrach (Klimovichskiy rayon, Mogilevskoy oblasti BSSR); SHALYGIN, B.V., veter. vrach (Klimovichskiy rayon, Mogilevskoy oblasti, BSSR); RYABOKON, G.T., veter. fel'dsher; MOVSUM-ZADE, K.K., prof.; DUGIN, G.L., aspirant; TITOV, G.I., nauchnyy sotrudnik; MEDVEDEV, I.G., veter. vrach.; ALIKAYEV, V.A.; ALLENOV, O.A., veter.vrach.

Prophylaxis and treatment of noninfectious diseases in calves and piglets. Veterinariia 40 no.2:40-47 F '63. (MIRA 17:2)

1. Ul'yanovskaya oblastnaya veterinarno-bakteriologicheskaya laboratoriya (for Sturman). 2. Kolkhoz imeni Kirova. Volokonovskogo

(Continued on next card)

STURMAN, A.V.— (continued) Card 2.
rayona, Belgorodskoy oblasti (for Bulgakov). 3. Sovkhoz "Akhuryanskiy", ArmSSR (for Abramyan). 4. El'khotovskaya veterinarno-bakteriologicheskaya laboratoriya Severo-Osetinskoy ASSR (for Allenov). 5. Shagatskiy veterinarnyy uchastok, Sisianskogo rayona, ArmSSR (for Kirakosyan). 6, Sovkhoz "Vekhno", Pskovskoy oblasti (for Georgiyev). 7, Leningradskaya lesotekhnicheskaya akademiya imeni S.M.Kirova (for Lomakin). 8. Siverskiy veterinarnyy uchastok, Gatchinskogo rayona Leningradskoy oblasti (for Shepelev). 9. Saratovskiy zooveterinarnyy institut (for Tarasov, Yeroshenko). 10. Sovkhoz "Gorodishchenskiy" Penzenskoy oblasti (for Romashkin). 11. Glavnyy veterinarnyy vrach plemennogo sovkhoza imeni Litvinova, Frunzenskogo rayona, Luganskoy oblasti (for Andriyan). 12. Svinosovkhoz imeni Podtelkova, Kosharskogo rayona, Rostovskoy oblasti (for Bartenev). 13. Sovkhoz "Shakhter" Donetskoy oblasti (for Korol'). 14. Zernosovkhoz "Mikhailovskiy" TSelinnogo kraya (for Banzen), 15. Kishinevskiy sel'skokhozyaystvennyy institut (for Saraykin, Zhevagin). 16. Klimovichskiy rayon, Mogilevskoy oblasti, BSSR (for But'yanov, Shalygin). 17. Kolkhoz imeni Shevchenko Tal'novskogo rayona, Cherkasskoy oblasti, UkrSSR (for Ryabokon'). 18. Leningradskiy veterinarnyy institut (for Movsum-zade, Dugin). 19. Buryatskaya nauchno-proizvodstvennaya veterinarnaya laboratoriya (for Titov). 20. Buryatskiy sel'skokhozyaystvennyy institut (for Medvedev).

DOLININ, G.A.; STEPANYAN, A.N., veter. vrach.; YESHCHENKO, N.A.; OREKHOVSKIY, V.K.; LYSENKO, I.F., veter. vrach (Tiraspol' Moldavskoy SSR); SARAYKIN, I.M., prof.; POGULYAY, V.D., veter. vrach (Romanovskiy rayon, Altayskogo kraya); BOGDANOVSKIY, A.V.; SAVUSHKINA, Ye.T., kand. veter. nauk

Prophylaxis and treatment of dyspepsia in calves. Veterinariia 41 no.1:72-75 Ja '64. (MIRA 17:3)

1. Glavnyy veterinarnyy vrach sela Uren', Gor'kovskoy oblasti (for Dolinin). 2. Ivanovskaya mezhrayonnaya veterinarnaya laboratoriya Khersonskoy oblasti (for Stepanyan). 3. Starshiy veterinarnyy vrach sovkhoza "Kamenskiy" Moldavskoy SSR (for Saraykin). 4. Moldavskiy sel'skokhozyaystvennyy institut (for Saraykin). 5. Glavnyy veterinarnyy vrach sovkhoza "Berestovoy", Donetskoy oblasti (for Bogdanovskiy).

SARAYKIN, I.M., prof.; BURYAK, I.A., veterinarnyy vrach

Treating acute enzootic bronchopneumonia in calves. Veterinariia 42 no.4:36 Ap '65. (MIRA 18:6)

1. Kishinevskiy sel'skokhozyaystvennyy institut.

RUSIN, N.M.; SARAYKINA, P.F.

[redacted]

Calculation of the percentage of fat in clabber, acidophileus milk, and kephir. Vop.pit. 13 no.1:30-33 Ja-F '54. (MLRA 7:1)

1. Iz otdela pishchevoy gigiyeny TSentral'nogo nauchno-issledovatel'skogo sanitarnogo instituta im. F.F.Erismana (Moscow).
(Milk, Fermented) (Kephir)

GORYAYEV M.I.; MIRFAIZOV, Kh.M.; SARAYKINA, V.K.

Obtaining furfurole by means of the dehydration of pentose hydrolyzates on a hot surface. Gidroliz. i lesokhim.prom. 18 no.4:3-4 '65. (MIRA 18:6)

1. Institut khimicheskikh nauk AN KazSSR.

L 10321-66 EWT(m)/EWP(j)/T DJ/RM

ACC NR: AP6000099 SOURCE CODE: UR/0360/65/000/002/0083/0086

AUTHOR: Goryayev, M. I.; Mirfaizov, Kh. M.; Saraykina, V. K.

28
B

ORG: None

TITLE: Method of obtaining furfural by rapid dehydration of pentose hydrolyzates in a medium of high-boiling oils

SOURCE: AN KazSSR. Izvestiya. Seriya Khimicheskikh nauk, no. 2, 1965, 83-86

TOPIC TAGS: furfural, pentose, transformer oil, silicone lubricant

ABSTRACT: Furfural is formed by the dehydration of pentoses and uronic acids. The authors produced furfural by an accelerated dehydration of pentose hydrolyzates obtained at the Chimkent Hydrolysis Plant (Chimkentnyy gidroliznyy zavod). The reaction was carried out in transformer or silicone oil in a stream of carbon dioxide. The results showed that the yield of furfural obtained was high (51 to 70% of theoretical). In the proposed dehydration method, use may be made of pentose hydrolyzates containing up to 10—11% pentose sugars. Condensates with high furfural concentrations are obtained by dehydrating pentose hydrolyzates with a relatively high content of pentose sugars. Orig. art. has: 1 figure and 1 table.

SUB CODE: 07, 11 / SUBM DATE: 09Jan64 / ORIG REF: 002

Card 1/1

SARAYLOV, M.G.

TKACHEV, K.I.; CHIZHIKOVA, L.V.; SARAYLOV, M.G.; KRIMER, F.P.; LEBEDEV, K.P., inzhener, retsenzent; BARANOV, I.A., inzhener, redaktor; LEYKINA, T.L., redaktor; POL'SKAYA, R.G., tekhnicheskiy redaktor.

[Improving the technology of casting fixtures] Usovershenstvovanie tekhnologii otlivki detalei armatury. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1955. 154 p. (MLRA 8:11)
(Founding)

GROCH, Juraj; za technickej spolupraca VRANAYOVEJ, E.; SARAYOVEJ, S.

Estimation of the time schedule for young school children. Cesk. pediat. 17 no.4:368-372 Ap '62.

1. Ustav hygieny a epidemiologie Lek. fak. University P. J. Safarika v Kosiciach, prednosta MUDr. R. Pospisil, CSc.

(CENTRAL NERVOUS SYSTEM physiol)
(SCHOOL HEALTH)

SARBACH, E.

Preparation and improvement of qualifications of foremen in the machinery industry. p. 345.
SLEVARENSTVI Vol 3, no. 9, Sept. 1955
Cxechoslovakia

SOURCE: EEAL, Vol, 5, no. 7, July 1956

SARBAGISHEV, B.

SARBAGISHEV, B. -- "Meat Productivity of the Alati Type of Large Horned Cattle." Moscow Veterinary Acad of the Min Agriculture USSR, Moscow, 1956. (Dissertation for the Degree of Candidate in AGRICULTURAL SCIENCES).

SO: KNIZHNAYA LETOPIS' (Book Register), No. 42, October 1956, Moscow.

USSR / Farm Animals. Cattle Q-2

Abs Jour: Ref Zhur-Biol., No 3, 1958, 12093

Author : Sarbagishev B.
Inst :
Title : The Fattening of Cattle of the Ala-Tau Breed in the Kirghiz ASSR (Nagul krupnogo rogatogo skota alatauskoy porody v Kirgizii)

Orig Pub: Tr.In-ta zool. i parazitol. AN KirgSSR, 1956, vyp. 5, 25-29

Abstract: 30 castrated bull calves of the Ala-Tau breed, aged 22-24 months, were fattened on pasture only without feeding supplement while grazing regimen was strictly observed. After 3 months of pasturing, an average total weight increase of 75 kg. was obtained in each bull calf, i.e., an average of 883 g. of daily weight increase. Upon slaughtering, the average output of meat and fat constituted 54%,

Card 1/2

USSR / Farm Animals. Cattle

Q-2

Abs Jour: Ref Zhur-Biol., No 3, 1958, 12093

Abstract: and the weight of hide was 27.4 kg. The results of the dissection of carcasses showed that a carcass contains on the average (in kg.) 37.9 of bones, 1.9 of tendons and 9.8 of intermuscular fat. A practice of fattening of the castrated bull calves of the Ala-Tau breed for a period over 90 days as well as the application of concentrate and silage feeding supplements in case of poor pasturing conditions is recommended.

Card 2/2

Q

COUNTRY : USSR

CATEGORY : Farm Animals. Cattle.

ABS. JOUR. : RZhBiol., No. 6, 1959, No. 25847

AUTHOR : Vsyakikh, A.; Sarbagishev, B.

INST. : -

TITLE : An Experiment Pertaining to Fattening Alatauskiy and Kirgizskiy Cattle with Pulp.

ORIG. PUB. : Molochn. i myasnoye zhivotnovodstvo, 1958, No 7, 20-23

ABSTRACT : When fattening was carried out for a 3-month period in February-April in open stalls and feed was given in throughs, 10.68 feed units were expended per 1 kg of weight gain for Alatauskaya cows and 11.25 feed units for Kirgizskaya cows, while the corresponding figures for castrated young bulls were 6.79 and 7.06. The Alatauskaya cows' slaughtered meat and fat return amounted to 62.8 percent, in castrated young bulls it amounted to 61.8 percent and in Kirgizskiy cattle correspon-

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

SARBASH Kh.M.

a

G

87-G. Longitudinal Anodic-Mechanical Saw. (In Russian.) Kh. M. Sarbash. *Stanki i Instrument* (Machine Tools and Equipment), v. 20, Nov. 1949, p. 15-16.

Convenient portable apparatus incorporating a type of saw in which a surface-active electrolyte is supplied to the cutting-tool point, thus permitting cutting of surface-hardened material without preliminary heat treatment. (G17)

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

3RD AND 4TH ORDERS

2ND LETTER

AUTHOR INDEX

1ST AND 2ND LETTER

SARBASH, Kh. M.

Mechanical Engineering

Technologicalhardness of a shaft., Stan. i instr., no. 12, 1951.

Monthly List of Russian Accessions, Library of Congress, March 1952. Unclassified.

POPOVA, Z.D.; SARBASOV, Sh.U.

Baykonur group of alumophosphate ore and phosphorite deposits in the Dzhezkazgan region. Vest. AN Kazakh. SSR. 19 no.6:62-65 Je '63. (MIRA 17:7)

88093

9.4310

S/110/60/000/003/003/004
E041/E421

AUTHORS: Sandler, A.S., Candidate of Technical Sciences and
Sarbatov, R.S., Engineer

TITLE: Characteristics of Power Transistors, Type П4 (P4) and П207 (P207) for Use in a Switching Regime

PERIODICAL: Vestnik elektropromyshlennosti, 1960, No.3, pp.60-65

TEXT: It is one of the advantages of operating the transistors in the switching regime that the power output from such circuits may be several times larger than the power dissipated within the transistor itself. Unless precautions are taken however when the characteristics of the transistor are measured they may easily be destroyed by the extreme conditions. Suitable equipment has been developed for this purpose by the laboratory of the Department for Electrical Equipment of Industrial Establishments at the Moscow Power Engineering Institute. A circuit diagram is given.
The characteristics presented are base voltage versus base current and collector voltage versus base current for constant collector

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E041/E421

Characteristics of Power Transistors, Type П4 (P4) and П207 (P207), for Use in a Switching Regime

current. Triodes type П3 (P3), П4 (P4) and П207 (P207) may be catered for with base currents up to 8 A and collector currents up to 10 A at intervals of 0.5, 1 and 2 A. By using supplementary resistors, the collector current may be increased up to 20 A or reduced below 0.5 A. The collector current is set manually from a d.c. source by switching a set of resistors connected to a 110 V supply. The collector voltage at large collector currents is read by comparison with a battery through a diode. A voltage divider and switch are used for calibrating the oscillograph screen. Common emitter characteristics are presented for the П4Б (P4B) device and for the P207. An equivalent circuit is derived for the saturation zone. The component values for a P4B being Rb 0.033 ohm, Re 0.022 ohm, Rc 0.01 ohm. These values together with the currents measured in the characteristics show that the weakest part of a high power transistor is the emitter junction where most of the power is dissipated. The current gain β varies with base current; in the saturation zone

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the maximum possible value of β for a P4B is 5, and for a P207 is 2. The general conclusion of the study is that there may be a falling-off in performance if the triode is operated in a very saturated condition and some intermediate choice of operating condition may be preferable. There are 10 figures.

SUBMITTED: June 9, 1959

Card 3/3

SANDLER, A.S., kand.tekhn.nauk; SARBATOV, R.S., inzh.

Inertial characteristics of junction transistors in keying operation with an active load. Vest. elektroprom. 32 no.7: 58-65 Jl '61. (MIRA 14:10)

(Transistor circuits)
(Pulse techniques (Electronics))

S/196/63/000/001/032/035
E194/E155

AUTHORS: Sandler, A.S., and Sarbatov, R.S.

TITLE: A static frequency-convertor based on power semiconductor triodes, for controlling the speed of induction motors

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.1, 1963, 3, abstract 1 K 16. (Tr. Mosk. energ. in-ta, no.38, 1962, 53-71)

TEXT: Power-frequency voltage is first rectified and then inverted into a three-phase voltage of the required frequency. The convertor consists of three main components: a controlled power-rectifier, an invertor and a control system. The latter includes a master generator, a phase-shift device and an amplifier. The circuit is given, operating principles are described and the performances of the individual components of the convertor are given. The output frequency and voltage can be adjusted independently of one another. Test results are given when operating as a static frequency-convertor driving an electrical spindle type ДШ -02/2 (DSh-02/2) of 0.2 kW at 200 c/s.

Card 1/2

SANDLER, A.S., kand.tekhn.nauk; SARBATOV, R.S., inzh.; KUDRYAVTSEV, A.V., inzh.; ZEL'DIN, V.Sh., inzh.; NIKOL'SKIY, A.A., inzh.

Static frequency converters for regulating the speed of asynchronous motors. Vest. elektroprom. 33 no.3:45-51 Mr '62. (MIRA 15:3)
(Frequency regulation) (Electric motors, Induction)

L 3277-66 EWT(1)/EPA(s)-2

ACCESSION NR: AR5014348

UR/0271/65/000/005/A032/A033
62-52:621.314.26

70
13

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika. Svodnyy tom, Abs. 5A222

AUTHOR: Sandler, A. S. 44,55; Kudryavtsev, A. V. 44,55; Sarbatov, R. S. 44,55; Nikol'skiy, A. A. 44,55; Zel'din, V. Sh. 44,55

TITLE: Static frequency changer with thyristors intended for speed regulation of high-speed induction motors 24,44,55

CITED SOURCE: Tr. Mosk. energ. in-ta, vyp. 56, 1964, 59-74

TOPIC TAGS: frequency changer, induction motor 44,55

TRANSLATION: A frequency changer designed with VKDU-20 thyristors consists of a power controlled rectifier, a 3-phase inverter, and a control system that comprises a frequency-setting unit, rectifier and inverter control units, a protection unit, and a supply source. The changer has an output power of 3-kva and a voltage controllable within 26—130 v at frequencies of 200—1000 cps,

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respectively. Oscillograms are presented of motor voltages and currents under steady-state conditions and also the oscillograms which illustrate starting, braking, and speed regulation of the motor. Cited advantages of the changer are: the possibility of continuous independent control of frequency and voltage, small weight, and small size. Cited disadvantages are: impossibility of efficient generator-type braking and greater installed capacity of equipment at higher (close to 1000 cps) frequencies. Calculation of transformers and coincidence circuit is indicated. Figs. 12, tabs. 2.

SUB CODE: EE ENCL: 00

Card 2/2

SANDLER, A.S., prof.; SARBATOV, R.S., inzh.

Heating of self-ventilating induction motors with frequency control. Elektrotekhnika 36 no.11:4-6 N '65. (MIRA 18:11)

L 05058-67 EWT(d)/EWT(1)/EWP(v)/EWP(k)/EWP(1)/EWP(h)

ACC NR: AM6014902 Monograph UR/

/19

/18

B+1

Sandler, Abram Solomonovich; Sarbatov, Rudol'f Sergeyevich

9 8 Electric drives with semiconductor control; frequency transformers for control of asynchronous motors (Elektroprivody s poluprovodnikovym upravleniyem; preobrazovateli chastoty dlya upravleniya asinkhronnymi dvigatelyami). Moscow, Izd-vo "Energiya," 1966. 143 p. illus., biblio. 15,500 copies printed. Series note; Biblioteka po avtomatike, vyp. 159.

TOPIC TAGS: transistorized frequency converter, transistorized inverter, voltage regulator, transistor switch

PURPOSE AND COVERAGE: This book is intended for engineers working in the field of automatic electric propulsion, and may also be useful to students of advanced courses of corresponding specialties. The book deals with the principles of frequency conversion and also power supply elements of transistorized inverters and voltage regulators. Operations of individual units in a transistorized frequency converter control system (master oscillator, phase shifters and control signal shapers) are analyzed. A. A. Bulgakov and N. F. Il'inskiy provided comments and assistance in editing the book. There are 31 references: 26 Soviet and 5 non-Soviet

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3 Principles of circuits of voltage regulators in frequency converters -- 48

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SUB CODE: 09/ SUBM DATE: 08Dec65/ ORIG REF: 026/ OTH REF: 005

SARBAYEV, A.N., inzhener.

Sealing caps for valve regulators of high-pressure steam boilers. Elek. sta. 24 no.5:48 My '53. (MLRA 6:7)

(Steam boilers--Safety appliances)

KIRILLOV, I.P.; ALEKSEYEV, A.M.; SARBAYEV, A.N.

Processes of oxidation of a catalyst for carbon monoxide conversion during its regeneration. Izv.vys.ucheb.zav.; khim. i khim.tekh. 7 no.2:246-251 '64. (MIRA 18:4)

1. Ivanovskiy khimiko-tekhnologicheskiy institut, kafedra tekhnologii neorganicheskikh veshchestv.

KIRILLOV, I.P.; SARBAYEV, A.N.

Vapor-phase oxidation and hydration of acetylene on a molybdenum oxide catalyst. Izv. vys. ucheb. zav.; khim. i khim. tekh. 7 no.4: 613-618 '64. (MIRA 17:12)

1. Kafedra tekhnologii neorganicheskikh veshchestv Ivanovskogo khimiko-tekhnologicheskogo instituta.

SARBAYEV, A.N.; KIRILLOV, I.P.

Catalytic conversion of acetylene on molybdenum catalysts in the vapor phase. Izv.vys.ucheb.zav.; khim.i khim.tekh. 7 no.6:948-952 '64. (MIRA 18:5)

1. Ivanovskiy khimiko-tekhnologicheskiy institut, kafedra tekhnologii neorganicheskikh veshchestv.

SOV/78-4-8-24/43

5(2)

AUTHORS: Fridman, Ya. D., Sarbayev, Dzh. S.

TITLE: The Investigation of the Equilibria in a Solution of Heterogeneous Complex Compounds of Metals (Izucheniye ravnovesiy v rastvore geterogennykh kompleksnykh soyedineniy metallov)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 8, pp 1849-1859 (USSR)

ABSTRACT: In the investigation of the redox properties of complex compounds the authors arrived at the conclusion that each ion, atom and reagent which is in the coordination sphere has a certain redox potential, the value of which depends on its individual properties and on the type and the intensity of its interaction with the substituents of the same sphere (Refs 1-4). This potential was termed by the authors as inner molecular redox potential. On the basis of these concepts the summarized thermodynamical values could be split up into components for the individual substituents of the complex compound. The solubility of copper thiocyanate and -iodide in solutions of potassium thiocyanate, -iodide, -bromide and chloride was investigated at 25°. The formation of heterogeneous compounds in the system $Cu^+ - J^- - SCN^- - (H_2)$ could be proved by the

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The Investigation of the Equilibria in a Solution of Heterogeneous Complex Compounds of Metals

high solubility of copper thiocyanate in a potassium iodide solution, the different solubility of copper thiocyanate and copper iodide in potassium iodide solution and the considerable deviation of the solubility of copper thiocyanate in potassium iodide- and potassium thiocyanate solution from the additivity. Heterogeneous complexes in the dissolution of copper iodide in aqueous solution of potassium bromide and potassium chloride were found as well. The formation constants of these complexes, which are the thiocyanoiodo -, iodobromo- and iodochloro derivatives of monovalent copper and which have different composition were computed. The thermodynamical values for the interaction of the ions were computed on the basis of the concepts of the inner molecular potential. In compounds CuJX ($X = SCN^-$, Br^-, Cl^-) the X^--ions weaken the Cu-J-bond. This effect increases with the reducing property of the substituent. The stability of the heterogeneous compounds is based on the joint reducing action of the different substituents on the central ion. There are 7 figures, 8 tables, and 18 references, 14 of which are Soviet.

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SOV/78-4-8-24/43

The Investigation of the Equilibria in a Solution of Heterogeneous Complex Compounds of Metals

ASSOCIATION: Laboratoriya tsvetnoy metallurgii AN Kirgizskoy SSR (Laboratory of Metallurgy of Nonferrous Metals of the AS Kirgizskaya SSR)

SUBMITTED: February 25, 1958

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69012

S/078/60/005/04/007/040
B004/B007

5.2120

AUTHORS: Fridman, Ya. D., Sarbayev, Dzh. S., Sorochan, R. I.

TITLE: Investigation of the Equilibria in Solutions of Complex Compounds of Metals. Mixed Halides of Lead and Heterogeneous Cadmium

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 4, pp 791 - 804 (USSR)

ABSTRACT: The authors describe a potentiometric method of investigating the equilibrium in solutions of complex compounds containing two different halogens. They mention the following experimental data: Table 1: Electrode potential of Cd-amalgam in chloride-bromide solutions; table 2: the same in bromide-iodide solutions at 25°; table 3: the same in chloride-iodide solutions at 50°; table 4: electrode potential of lead amalgam in chloride-bromide solutions; table 5: the same in bromide-iodide solutions. The potentials were measured by means of a PPTV-1 potentiometer. On the basis of experimental data the equilibrium curves for mixed halogen compounds of cadmium (Figs 1-3) and lead (Figs 5,6) at 25° as well as at 50^0 (Cd - figure 4, Pb - figure 7) were drawn at a constant ion strength of 5. The authors found that in the solutions of the halogen compounds of Pb and Cd compounds of the type $MX_{3-j}Y_j^{2-}$ and

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Investigation of the Equilibria in Solutions of Complex Compounds of Metals. Mixed Halides of Lead and Heterogeneous Cadmium

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$MX_{4-j}Y_j^{2-}$ exist (X and Y = Cl and Br, Cl, and J, Br and J). The conditions for the formation of these compounds were determined and their dissociation constants were calculated. On the basis of the results obtained and of published data the authors arrive at the conclusion that the equilibrium constants (Tables 6,7) of the reaction of the consecutive substitution of a coordinate halogen-ion by another, decrease with the number of ions substituted in the coordination sphere. Consequently, complex ions of the type MXY_{m-1}^{z-} become stabilized in the solutions. These phenomena are also confirmed by the data (Table 8) determined by means of various methods and by various research workers concerning the equilibrium of mixed halogen compounds of Cu (I), Ag, Hg, Cd, Pb, Sb, and Bi. There are 7 figures, 8 tables, and 12 references, 3 of which are Soviet.

ASSOCIATION: Akademiya nauk KirgSSR Laboratoriya tsvetnoy metallurgii (Academy of Sciences of the Kirgizskaya SSR, Laboratory for Nonferrous Metallurgy)

SUBMITTED: November 20, 1958

Card 2/2

FRIDMAN, Ya.D.; SARBAYEV, Dzh.S.

Stability of mixed thiogenate halo compounds of cadmium
in solutions. Izv. AN Kir. SSR. Ser. est. i tekh. nauk 5
no.1:125-133 '63. (MIRA 16:11)

SARBAYEV, M.; GRINBERG, A.

Utilization of workers during the interseason period. Mias.ind. SSSR 33 no.3:31-32 '62. (MIRA 15:7)

1. Kiyevskiy myasokombinat.
(Meat industry)

SARBAYEV, M.; FIRGER, I.

We achieve savings of means and a simplification of raw leather sorting procedures. Mias.ind.SSSR 33 no.5:31 '62. (MIRA 15:12)

1. Kiyevskiy myasokombinat.
(Kiev--Meat industry) (Hides and skins)

FRIDMAN, Ya.D.; SARBAYEV, S., Dzh.; VERESOVA, R.A.

Stability of mixed silver halides in solutions. Zhur.neorg.khim. 7 no.2:305-311 F '62. (MIRA 15:3)

1. Akademiya nauk Kirgizskoy SSR.
(Silver halides)

NAZAROV, I.N.; SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthetic anesthetics. Synthesis of benzoic esters of 1-n-propl and 1-n-butyl-2,5-dimethyl-4-ethynyl-4-piperidinols. Zhur. ob. khim. 30 no.9:2904-2908 S '60. (MIRA 13:9)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol) (Anesthetics)

NAZAROV, I.N.; SHARIFKANOV, A.Sh.; YUSUPOV, S.A.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of 2,5-dimethyl-4-ethynyl (vinyl and ethyl)-4-piperidinols. Zhur.ob.khim. 30 no.10:3267-3271 O '61. (MIRA 14:4)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of benzoic esters of γ- and β-isomers of 1-(1-phenyl-1-propenyl)-2,5-dimethyl-4-ethynyl-4-piperidinol. Zhur.ob.khim. 31 no.9:2851-2853 S '61. (MIRA 14:9)

1. Kazakhskiy gosudarstvennyy universitet.
(Benzoic acid) (Piperidinol)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of phenoxyacetic, p-methoxyphenoxyacetic, and β-phenylmercaptopropionic esters of a γ-isomer of 1-(β-phenylallyl)-2,5-dimethyl-4-ethynil-4-piperidol. Zhur.ob.khim. 32 no.2:417-419 F '62. (MIRA 15:2)

1. Kazakhskiy gosudarstvennyy universitet.

(Esters)

(Piperidinol)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of benzoic, p-methoxyphenoxyacetic, and β-phenylmercaptopropionic esters of a γ-isomer of 1-(β-phenylethyl)-2,5-dimethyl-4-ethynil-4-piperidol. Zhur. ob.khim. 32 no.2:419-422 F '62. (MIRA 15:2)

1. Kazakhskiy gosudarstvennyy universitet.
(Esters)
(Piperidinol)

SHARIFKANOV, A.Sh.; SARBAYEV, T.G.

Heterocyclic compounds. Synthesis of benzoic esters of γ-isomers of 1-(γ-phenylallyl)- and 1-(β-phenylethyl)-2,5-dimethyl-4-vinyl-4-piperidinols. Zhur.ob.khim. 32 no.10:3172-3174 O '62. (MIRA 15:11)

1. Kazakhskiy gosudarstvennyy universitet.
(Piperidinol) (Benzoic acid)